

FORM PTO-1390 (Modified)
(REV 11-98)

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTORNEY'S DOCKET NUMBER

TRANSMITTAL LETTER TO THE UNITED STATES

11016-003

DESIGNATED/ELECTED OFFICE (DO/EO/US)

U.S. APPLICATION NO. (IF KNOWN, SEE 37 CFR

CONCERNING A FILING UNDER 35 U.S.C. 371

09/743182

INTERNATIONAL APPLICATION NO.

INTERNATIONAL FILING DATE

PRIORITY DATE CLAIMED

PCT/FR99/01640 ✓

07 July 1999 (07.07.99) ✓

07 July 1998 (07.07.98) ✓

TITLE OF INVENTION

MAGNETIC COATING, COATING METHOD USING SAID COATING AND IMPLEMENTING DEVICE ✓

APPLICANT(S) FOR DO/EO/US

Claude TEXIER ✓

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☐ This is an express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(1).
4. ☒ A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.
5. ☒ A copy of the International Application as filed (35 U.S.C. 371 (c) (2))
 - a. ☐ is transmitted herewith (required only if not transmitted by the International Bureau).
 - b. ☒ has been transmitted by the International Bureau.
 - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☒ A translation of the International Application into English (35 U.S.C. 371(c)(2)).
7. ☐ A copy of the International Search Report (PCT/ISA/210).
8. ☒ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371 (c)(3))
 - a. ☐ are transmitted herewith (required only if not transmitted by the International Bureau).
 - b. ☒ have been transmitted by the International Bureau.
 - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
 - d. ☐ have not been made and will not be made.
9. ☐ A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
10. ☐ An oath or declaration of the inventor(s) (35 U.S.C. 371 (c)(4)).
11. ☐ A copy of the International Preliminary Examination Report (PCT/IPEA/409).
12. ☐ A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371 (c)(5)).

Items 13 to 20 below concern document(s) or information included:

13. ☒ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
14. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
15. ☒ A **FIRST** preliminary amendment.
16. ☐ A **SECOND** or **SUBSEQUENT** preliminary amendment.
17. ☐ A substitute specification.
18. ☐ A change of power of attorney and/or address letter.
19. ☐ Certificate of Mailing by Express Mail
20. ☐ Other items or information:

11016-003

CALCULATIONS PTOUSE ONLY

\$860.00

\$130.00

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Page 2 of 2

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Claude TEXIER

In'tl Appln. No.: PCT/FR99/01640

Int'l Filing Date: 07 July 1999 (07.07.99)

For: Magnetic Coating, Coating Method Using Said Coating And Implementing Device

PRELIMINARY AMENDMENT

Honorable Director of the Patent and
Trademark Office
Washington, D.C. 20231

Sir:

Prior to calculating the fees, please amend the above-captioned application as follows:

IN THE SPECIFICATION¹

Page 1, before line 3, insert the following:

- - TECHNICAL FIELD - -

Page 1, before line 8, insert the following:

- - BACKGROUND - -

Page 1, before line 17, insert the following:

- - SUMMARY OF THE INVENTION - -

Page 3, before line 14, insert the following:

- - BRIEF DESCRIPTION OF THE DRAWINGS - -

Page 3, before line 19, insert the following:

- - DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT - -

IN THE CLAIMS²:

Claim 4, line 5, change "any preceding claim", to --claim 1--.

¹ See attached English language translation.

² As amended pursuant to Article 34. Also see attached English language translation.

Claim 6, line 1, delete "or 5".

Claim ^a8, lines 1 and 2, delete "for implementing the method according to any one of claims 5 to 7,";

lines 4 and 5, delete "or 3."

REMARKS

The above amendments are made to add section titles in accordance with US practice and to eliminate multiple dependent claims. No new matter is contained in the amendment.

Please charge any fee deficiency or credit any overpayment to Deposit Account No. 50-1088.

Respectfully submitted,

CLARK & BRODY



Conrad J. Clark
Reg. No. 30,340

1750 K Street, NW, Suite 600
Washington, DC 20006
Telephone: 202-835-1111
Docket No.: 11016-0003
Date: January 5, 2001

1/PRTS

1

MAGNETIC COATING, COATING METHOD USING SAID COATING AND
IMPLEMENTING DEVICE

The present invention relates mainly to a magnetic coating, to a method of coating outside surfaces, in particular of sheet materials, and to a coating machine implementing said method.

It is known to provide various objects with a magnetized surface to enable them to be fixed temporarily on a ferromagnetic support such as a refrigerator door, an armored door, or the like. Plates of iron have also been used as supports for games containing magnetized pieces, such as chess games. Unfortunately, most surfaces such as walls, pieces of card, or the like, are not capable of retaining magnets. Similarly, flexible magnetic media suitable for being rolled or folded are not commonly available.

Consequently, an object of the present invention is to provide a method enabling ferromagnetic properties to be given to any medium, and in particular to paper, card, sheets of flexible or rigid plastics material, wallpaper, walls, etc.

Another object of the present invention is to provide a method of magnetizing such media.

Another object of the present invention is to provide electromagnetic shielding serving firstly to confine electromagnetic waves that are given off in a room, and secondly to limit the penetration of electromagnetic waves into said room.

Another object of the present invention is to provide such methods at low cost price.

These objects are achieved by a method of the present invention which comprises a step of mixing ferromagnetic particles with a binder, typically a paint or an adhesive. Advantageously the mixture (weighty, and liquid or semi-liquid) is homogenized before being coated onto a medium. If it is also desired to obtain a surface that is magnetized, a magnetic field is applied to the

coated medium having ferromagnetic particles suitable for remaining magnetized when no longer subjected to the action of an external magnetic field.

5 The invention mainly provides a coating including a binder and suitable for being spread substantially regularly over a surface, the coating being characterized in that it further comprises a ferromagnetic component, in particular an iron oxide.

10 In an advantageous embodiment of said coating, said binder is an adhesive, in particular a hot-melt adhesive.

In an advantageous disposition of said embodiment, said coating comprises essentially two parts by weight of hot-melt adhesive and six parts by weight of iron oxide.

15 In another advantageous embodiment of said coating, said binder is a paint.

The invention also provides a method of coating a surface, the method being characterized in that it comprises the following steps:

20 a) coating a medium, in particular a card medium, in a layer of constant or substantially constant thickness of a coating of the invention and comprising a binder and a ferromagnetic component, in particular an iron oxide; and

25 b) causing the coating spread on the surface to set.

30 In an advantageous implementation of said method, the coating step is performed in the presence of a coating including a ferromagnetic film corresponding to 200 grams per square meter (g/m^2) to 850 g/m^2 of iron oxide, and preferably substantially equal to 800 g/m^2 of iron oxide.

In another advantageous implementation of said method, it further includes a step c) of magnetizing the ferromagnetic fill of the coating.

35 In the invention, step c) of magnetizing the ferromagnetic fill advantageously takes place before step b) in which the binder of the coating is caused to set, and the magnetizing magnetic field is strong enough to ensure

that magnetic particles in the binder become oriented before the binder sets.

The invention also provides a coating machine for implementing the method of the invention, characterized
 5 in that it comprises means 11 for coating a medium 9, in particular a card medium, with a coating of the invention, said machine including means for heating a hot-melt glue and for applying it to said medium 9.

In an advantageous embodiment of said machine, it
 10 also has a magnet 15 for magnetizing the coating layer.

The present invention will be better understood from the following description and the accompanying figures given as non-limiting examples and in which:

• Figure 1 is a flow chart showing the preferred
 15 implementation of the method of the present invention; and

• Figure 2 is a diagrammatic side view of a coating machine of the present invention.

Figure 1 shows the outline of the method of the
 20 present invention.

At 1, a binder, typically a paint or an adhesive, is mixed with ferromagnetic particles forming a filler in the binder. A paint is used if the coating of the present invention is to be visible on its medium.
 25 Naturally the ferromagnetic particles may alter the color of the paint. If this effect is undesired, it is possible to use paint of the present invention and including a ferromagnetic fill as an undercoat and first coat, and thereafter to cover it with one or more layers
 30 of paint not having any ferromagnetic filler.

In an advantageous variant, the binder is an adhesive. Any type of adhesive can be used that is compatible with the ferromagnetic filler used and with the medium to be coated.

35 The adhesive makes it possible to cause sheet material, e.g. a sheet of optionally decorated paper, a

plastics film, or the like to be made to adhere to the medium.

By way of example, it is possible to use adhesives in dispersion, in particular acrylic, vinyl acetate, copolymer of vinyl acetate and acrylic ethylene or styrene, adhesives in solution of the vinyl acetate, acrylic, or acrylic styrene type, vegetable adhesives in particular of the starch type, dextrin, or casein type, or advantageously hot-melt adhesives made in particular on the basis of ethylene vinyl acetate, acrylic ethylene, polyolefin, butadiene styrene, or isoprene styrene.

Naturally, for media that are to be magnetized, the temperature at which hot-melt adhesives are used at the time of magnetization must lie below the Curie temperature of the ferromagnetic material concerned.

For a material that is not to present any remanence, any ferromagnetic material can be used providing it is capable of presenting the desired grain size and the desired stability over time, in particular chemical stability. For example it is possible to use soft iron, quenched iron, ferrite, any iron oxide, ferromagnetic rare earths, samarium, barium, or cobalt.

To provide screening against electromagnetic radiation, it is advantageous for the fill of particles to be sufficient to make the covering of the present invention conductive, at least at the frequencies that are to be eliminated. In a variant, non-ferromagnetic conductive particles are used, e.g. copper particles, in addition to or instead of the ferromagnetic particles for the purpose of forming shielding or a Faraday cage. Such shielding enables electronic equipment, in particular telecommunications equipment and computer equipment, to be protected from external disturbances and also from eavesdropping by preventing the electromagnetic signals given off by equipment of this type in operation from being overheard.

In a variant, iron particles are used that are themselves covered in a material for providing protection against corrosion, e.g. a layer of cobalt. It is also possible to use chromium, chromium oxide, and the particles that are used for coating magnetic tapes.

Advantageously, the amount of electromagnetic filler that is used is the maximum that can be accepted by the binder, for example six units by weight of ferromagnetic powder for two units by weight of binder. For examples 200 grams (g) to 850 g of iron oxide can be deposited per square meter (m^2) of card, e.g. 800 g/ m^2 .

Advantageously, the ferromagnetic powder has grains of small size so as to obtain a surface state that is smooth. Excellent results have been obtained with iron oxide having a grain size of 24 micrometers (μm), and smaller grain sizes are also suitable. If a granular surface state is acceptable, then it is possible to use grains of larger size, e.g. lying in the range 25 μm to 300 μm .

In a first implementation, the ferromagnetic particles are spherical or substantially spherical. In an advantageous variant, the ferromagnetic particles are in the form of elongate rods.

The binder is mixed with the ferromagnetic powder. Mixing can be performed using a binder in liquid or semi-liquid form. Under such circumstances, it is possible to obtain a mixture that is quite uniform. In a variant, mixing is performed between solid particles. Under such circumstances, it is advantageous (as shown at 3) subsequently to perform a homogenizing step, e.g. after a hot-melt adhesive has melted.

The method continues at 5.

At 5, a medium is coated. The medium can be in sheet form, e.g. paper or card, plates of plastics material, or the like. This can be done so as to coat card for making jigsaw puzzles, boards for playing games, books, pictures, wallpaper, or the like. Coating can

also be performed on bulky elements which receive the coating of the present invention on at least a portion of their outside surface, e.g. walls, partitions, or the like. If the coating of the present invention is an adhesive, a surface element is placed on the surface to receive the adhesive, e.g. paper carrying a desired pattern. If the product is to be magnetized, a step 7 is performed in which it is subjected to a magnetic field induced by permanent magnets, or advantageously by an electromagnet.

For elements that are to be made ferromagnetic without remanent magnetization, it is possible to use coating devices of conventional type with a surface covering being caused to adhere on one or more faces of the medium, which is typically made of card.

It is possible to cover both faces of a medium, typically made of card or a sheet of plastics material, with the covering of the present invention in such a manner as to enable pieces to be stacked.

In a variant, a first face of the medium receives a non-magnetized covering, with the opposite face receiving a covering suitable for being magnetized.

In a second variant implementation, both faces receive a covering which is subsequently magnetized in permanent manner.

Magnetization can be performed by magnetically polarizing particles held in a binder without moving the particle, either because the magnetic field is not sufficiently intense, or because the adhesive has already dried and opposes any displacement or turning of the particles. In an advantageous variant, the covering of the present invention is subjected to an intense magnetic field before the adhesive sets, i.e. before the particles are prevented from moving, so as to orient the particles in the magnetic field, and then once the adhesive has set the particles are held in this position which corresponds to a strong remanent magnetic field. This variant is

particularly advantageous when using a magnetic powder made up of particles in the form of rods. Under such circumstances, it is particularly advantageous to use a hot-melt adhesive so that it is easy to control setting thereof.

Figure 2 is a diagram of a device for applying adhesive and magnetizing card. The device shown is a single face device but naturally double-face devices would not go beyond the ambit of the present invention.

The card 9 passes beneath a machine 11 for dispensing hot-melt adhesive. The machine 11 can be a nozzle type machine or advantageously a roller type machine, for example a machine including a 3960 Multiscan[®] sold by Nordson and connected via 2.40 meter long automatic heating hoses to automatic guns sold by the same company under the reference H20. The fluid coating (hot when a hot-melt adhesive is used) is inserted, for example, between two rollers and flows through a calibrated gap left between the rollers. The hot adhesive containing ferromagnetic particles is deposited on the card 9 travelling in the direction of arrow 13 at a speed that can lie in the range 20 meters per minute (m/min) to 250 m/min, and preferably lying in the range 30 m/min to 150 m/min.

Advantageously, before the adhesive sets, while the particles can still move in the coating of the present invention, the coated card passes through the airgap of a magnet or an electromagnet 15 that generates a magnetic field that is substantially uniform over the entire width of the card. On coming up to the magnet 15, the coating of the present invention has a temperature that is below the Curie temperature of the material constituting the ferromagnetic particles. By way of example, a permanent magnet 15 is used which generates a magnetic field of 0.4 Teslas over an area of 1.10 m × 1.70 m. In a variant, an air- or water-cooled electromagnet is used, e.g. generating a magnetic field that is substantially

equal to 0.5 Teslas. It should be observed that the viscosity of the covering of the present invention in the vicinity of the elements 15, and the amplitude of the magnetic field are such as to ensure that the magnetic particles do not migrate out from the binder and stick in the gap between the elements 15. Similarly, guide means (not shown) prevent the card 9 covered in the covering of the present invention from coming to stick against one of the poles of the magnet 15.

Advantageously, the device of Figure 2 also has means (not shown) for depositing sheet material, typically paper, so as to cover the surface of the card. The paper can have printing of various kinds thereon and it can be put into place before or after the magnetic field is applied by the magnet 15.

The device of Figure 2 advantageously includes means for cutting the card 9 (not shown). Naturally, the present invention is not limited to means for continuous application of adhesive and also applies to means that apply adhesive discontinuously, sheet by sheet. A machine can apply adhesive to 90 cards per minute, for example, with each card having a surface area of 40 cm by 55 cm.

It is also possible, particularly when applying adhesive discontinuously, to deposit the covering in predefined zones only or to magnetize certain zones only so as to cause magnets to attach only in said predefined zones which also receive special marking, e.g. corresponding to the correct answers to questions printed on the visible face of the medium. Magnetization in zones can be obtained by the airgaps of the magnet 15 having the shape of the desired zones, or by employing a set of electromagnets disposed as a matrix and powering only those electromagnets which are in register with zones that are to be magnetized.

The method of the invention also makes it possible to match the thickness of the coating as a function of

the weight per unit area of the two sheets to be stuck together. For example, backing a sheet having a weight of 90 g onto a sheet of the same thickness or greater thickness requires about 90 g to 120 g of coating. The magnetized coating of the magnet can also be adapted under the same conditions. In other words, the thickness of the coating can perfectly well be adapted to match the appearance, the weight, the magnetization force, and the cost price that are desired for it.

10 The present invention also applies to making games, in particular jigsaw puzzles, board games, educational games, wall coverings for removable retention of decorative elements or signs (by means of magnets), and the like.

15 The present invention applies mainly to the paper-making and building industries.

CLAIMS

- 1/ A coating including a binder and suitable for being spread substantially regularly over a surface, the coating being characterized in that it further comprises
5 a ferromagnetic component, in particular an iron oxide, and in that the binder is a hot-melt adhesive.
- 2/ A coating according to claim 1, characterized in that the coating comprises essentially two parts by weight of
10 hot-melt adhesive and six parts by weight of iron oxide.
- 3/ A coating according to claim 1, characterized in that the binder is a paint.
- 15 4/ A method of coating a surface, the method being characterized in that it comprises the following steps:
a) coating a medium, in particular a card medium, in a layer of constant or substantially constant thickness of a coating according to any preceding claim; and
20 b) causing the coating spread on the surface to set.
- 5/ A method according to claim 4, characterized in that it includes a ferromagnetic fill corresponding to 200 g/m² to 850 g/m² of iron oxide, preferably substantially
25 800 g/m² of iron oxide.
- 6/ A method according to claim 4 or 5, characterized in that it further includes a step c) of magnetizing the ferromagnetic fill of the coating.
30
- 7/ A method according to claim 6, characterized in that step c) of magnetizing the ferromagnetic fill takes place before step b) in which the binder of the coating is caused to set, and in that the magnetizing magnetic field
35 is strong enough to ensure that magnetic particles in the binder become oriented before the binder sets.

8/ A coating machine for implementing the method
according to any one of claims 5 to 7, characterized in
that it comprises means (11) for coating a medium (9), in
particular card, with a coating according to claim 2 or
5 3, said machine having means for heating a hot-melt
adhesive and for applying it to said medium (9).

9/ A machine according to claim 8, characterized in that
it further includes a magnet (15) for magnetizing the
10 coating layer.

1 / 1

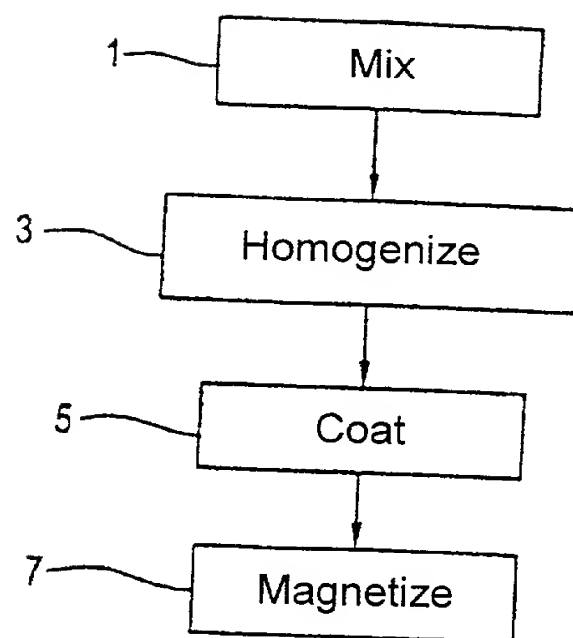


Fig. 1

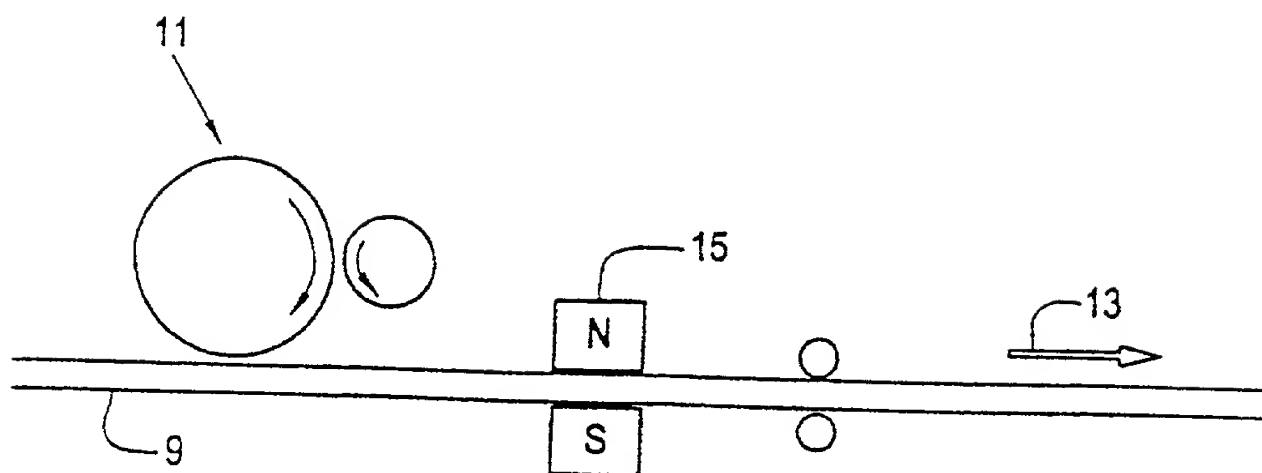


Fig. 2

DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I declare that:

My residence, post office address, and citizenship are as stated below next to my name. I believe that I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter that is claimed and for which a patent is sought on the invention entitled

MAGNETIC COATING, COATING METHOD USING SAID COATING AND IMPLEMENTING DEVICE

☒ the specification of which is attached hereto,
☐ was filed on July 7, 1999 as International Application No. PCT/EP99/01840.

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information of which I am aware and which is material to the examination of the patent application in accordance with 37 CFR 41.55.

I hereby claim foreign priority benefits under 35 U.S.C. §119(a)-(d) or §365(b) of any foreign application(s) for patent or inventor's certificate, or §365(a) of any PCT International application which designates at least one country other than the United States, listed below and have also identified below, by checking the space, any foreign application for patent or inventor's certificate, or PCT International application having a filing date before that of the application on which priority is not claimed.

Prior Foreign Application(s)

Number	Country	Day/Month/Year Filed	Priority Not Claimed
<u>FR 98 08668</u>	<u>France</u>	<u>07 July 1998</u>	<input type="checkbox"/>

I hereby claim the benefit under 35 U.S.C. §119(e) of any United States provisional application(s) listed below.

Application Serial Number	Filing Date

I hereby claim the benefit under 35 U.S.C. §120 of any United States application(s), or §365(c) of any PCT International application designating the United States, listed below and, whether or not the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. §112. I acknowledge the duty to disclose information known to me which is material to the patentability as defined in 37 CFR §1.55 which became available between the filing date of the prior application and the national or PCT International filing date of this application.

Application Serial Number	Filing Date	Status (granted, pending, abandoned)
<u>PCT/EP99/01840</u>	<u>07 July 1999</u>	<u>Inactive</u>

Each undersigned applicant hereby appoints CONRAD J. CLARK (Registration No. 30,340) and CHRISTOPHER W. BRODY (Registration No. 33,813), as his attorneys with full power of substitution to prosecute the subject application and to transact all business in the Patent and Trademark Office connected therewith.

Send Correspondence to: CLARK & BRODY, 1750 H Street, NW, Suite 900, Washington, DC 20006; Telephone: 202-435-1111; Facsimile: 202-435-1765.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that those statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole or first inventor: Claude Texier
Inventor's signature: *Claude Texier* Date: 23/02/01
Residence: Thoiry sur Marne
Citizenship: French
Post Office Address: 23 rue des Fontaines F-77400 Thoiry sur Marne, France

Full name of second joint inventor, if any: _____
Inventor's signature: _____ Date: _____
Residence: _____
Citizenship: _____
Post Office Address: _____

Full name of third joint inventor, if any: _____
Inventor's signature: _____ Date: _____
Residence: _____
Citizenship: _____
Post Office Address: _____

Fourth and subsequent joint inventors are listed on second sheet

SEE ATTACHED COPY.

DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I declare that:

My residence, post office address, and citizenship are as stated below next to my name. I believe that I am the original, first and sole inventor (if only one name is listed below) or an original, first, and joint inventor (if plural names are listed below) of the subject matter that is claimed and for which a patent is sought on the invention entitled

MAGNETIC COATING, COATING METHOD USING SAID COATING AND IMPLEMENTING DEVICE

☐ the specification of which is attached hereto.

☒ was filed on July 7, 1999 as International Application No. PCT/FR99/01640

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information of which I am aware and which is material to the examination of the patent application in accordance with 37 CFR §1.56.

I hereby claim foreign priority benefits under 35 U.S.C. §119(a)-(d) or §365(b) of any foreign application(s) for patent or inventor's certificate, or §365(a) of any PCT International application which designates at least one country other than the United States, listed below and have also identified below, by checking the space, any foreign application for patent or inventor's certificate, or PCT International application having a filing date before that of the application on which priority is not claimed.

Prior Foreign Application(s)

Number	Country	Day/Month/Year Filed	Priority Not Claimed
<u>FR 98 08668</u>	<u>France</u>	<u>07 July 1998</u>	

I hereby claim the benefit under 35 U.S.C. §119(e) of any United States provisional application(s) listed below.

Application Serial Number

Filing Date

I hereby claim the benefit under 35 U.S.C. §120 of any United States application(s), or §365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. §112, I acknowledge the duty to disclose information known to me which is material to the patentability as defined in 37 CFR §1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application.

Application Serial Number

Filing Date

Status (patented, pending, abandoned)

PCT/FR99/01640

07 July 1999

inactive

Each undersigned applicant hereby appoints **CONRAD J. CLARK (Registration No. 30,340)** and **CHRISTOPHER W. BRODY (Registration No. 33,613)**, as his attorneys with full power of substitution to prosecute the subject application and to transact all business in the Patent and Trademark Office connected therewith.

Send Correspondence to: **CLARK & BRODY, 1750 K Street, NW, Suite 600, Washington, DC 20006; Telephone: 202-835-1111; Facsimile: 202-835-1755.**

I hereby declare that all statements made herein of my own knowledge are true and that all statement made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole or first inventor: Claude Texier

Inventor's signature: _____ Date: _____

Residence: Thorigny sur Mame

Citizenship: French

Post Office Address: 23, rue des Fontaines, F-77400 Thorigny sur Mame, France

Full name of second joint inventor, if any: _____

Inventor's signature: _____ Date: _____

Residence: _____

Citizenship: _____

Post Office Address: _____

Full name of third joint inventor, if any: _____

Inventor's signature: _____ Date: _____

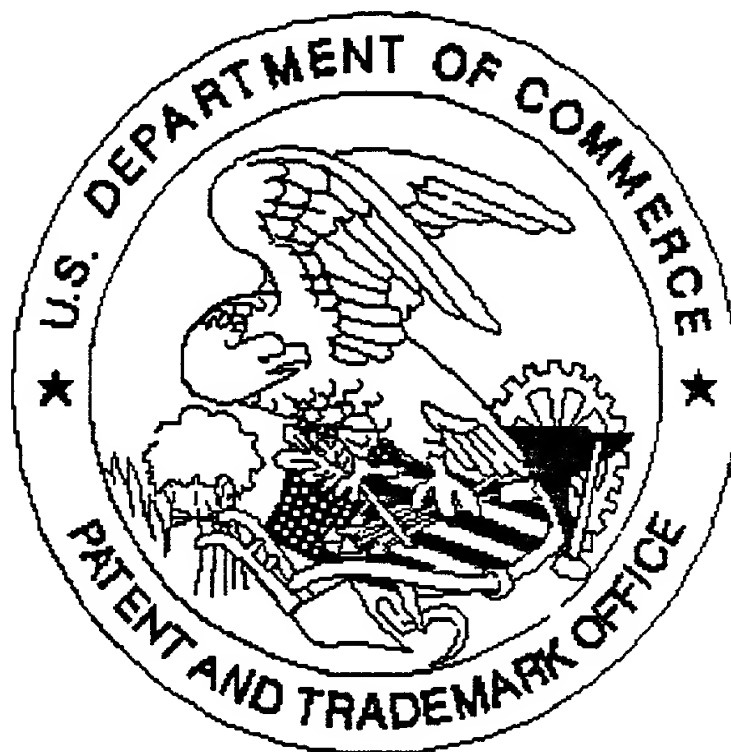
Residence: _____

Citizenship: _____

Post Office Address: _____

____ Fourth and subsequent joint inventors are listed on second sheet

United States Patent & Trademark Office
Office of Initial Patent Examination -- Scanning Division



Application deficiencies found during scanning:

☐ Page(s) _____ of _____ were not present
for scanning. (Document title)

☐ Page(s) _____ of _____ were not present
for scanning. (Document title)

☒ *Scanned copy is best available. Declaration*